

CLAIMS

1. A power transmission striated belt suitable for automotive applications comprising :

an elastomeric matrix ; and

a lengthwise supporting structure consisting of polyamide 4.6 twisted strands that are wound with a very small nominal tension or almost without any tension, and wherein a curing operation of the elastomeric matrix and a cooling operation after curing are carried out without any belt tensioning.

2. The belt according to claim 1 wherein the supporting structure is selected so that the belt has a stress-elongation diagram which exhibits an average slope ranging from 12 to 20 daN/% of elongation per width centimeter and per strand.

3. The belt according to claim 2, wherein said average slope is equal to 17 daN/% of elongation per width centimeter and per strand.

4. The belt according to claim 1, wherein the belt has a length, as measured on a test bench according to the ISO Standard 9981, which is lower by 1%-6% than the nominal length of a drive system.

5. The belt according to claim 4, wherein the length of said belt, as measured on a test bench, is lower by 2%-3% than the nominal length of a drive system.

6. The belt according to claim 1, wherein the belt has a stable operating tension ranging from 14 to 20 daN/width centimeter/strand.

7. The belt according to claim 1 wherein the twisted strands have a diameter ranging from 0.7 to 1.3 mm.

8. The belt according to claim 1 wherein a space between the twisted strands ranges from 0 to $4d$, d designating a diameter of the twisted strands.

9. The belt according to claim 7, wherein said space between the twisted strands ranges from 0 to $2d$.

10. The belt according to claim 1, wherein said very small nominal tension is less than 5 N.

11. The belt according to claim 2, wherein said very small nominal tension is less than 5 N.

12. The belt according to claim 3, wherein said very small nominal tension is less than 5 N.

13. A drive system comprising a pulley integral with a driving shaft of a car engine and at least one pulley integral with a driven shaft of a receiving device, and wherein said pulleys carry a belt according to any one of claims 1 to 12, and wherein said drive system is free from any fixed tightener.